
Results of the 4th
American Institute of Aeronautics and
Astronautics (AIAA)
International Space Cooperation Workshop
Working Group 3
Global Navigation Satellite Systems

Presentation to the CGSIC International Session

April 8, 1998

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4/7/98

Working Group 3 - Global Navigation Satellite Systems

American Institute of Aeronautics and Astronautics (AIAA) International Space Cooperation Workshop

- Fourth in a series begun in 1992
- Workshop held in January, 1998 in Banff, Canada - 3 1/2 days
- Global Navigation Satellite Systems (GNSS) -- one of five topics addressed by the Working Groups

Working Group 3 - Global Navigation Satellite Systems

- ◆ Working Group Mandate: What role for international cooperation in current and future GNSS?
- ◆ Working Group Composition: Six Americans, Nine Western Europeans, One Japanese
- ◆ Working Group Co-chairs: Rich DalBello (US), Roy Gibson (Europe)
- ◆ Rapporteurs: Dick Barnes (US), Dave Turner (US)

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WORKING GROUP FINDINGS - I

- ◆ Global growth in use of GPS will continue as long as civil signal available free of charge.
- ◆ 1996 Presidential Policy Statement on GPS -- important progress toward achieving international acceptance, BUT
 - Does not address international view that civil international management essential

WORKING GROUP FINDINGS - I (continued)

- ◆ In addition to current bilaterals, multilateral consultations will be required to achieve agreement on:
 - Service guarantees
 - Standards & Interoperability
 - Defense and Security Measures
 - Spectrum Allocation
 - Free Circulation of User Equipment
- ◆ Threat posed by hostile use of and/or hostile actions against SatNav systems should be a concern of all user nations

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WORKING GROUP FINDINGS - II

- ◆ GLONASS not fully operational: therefore of limited use
 - Signal structure differs from GPS
 - GPS and GLONASS not fully interoperable
- ◆ GLONASS requires external financial assistance to play significant international role
- ◆ Opportunities exist to separate civil and military signals within the assigned frequency spectrum

WORKING GROUP FINDINGS - II (continued)

- ◆ No realistic near term possibility for dedicated private sector system as long as GPS & GLONASS signals are free
- ◆ Beyond ICAO & IMO, international organizations are required to address needs of other user communities, such as
 - land,
 - geodesy,
 - precise timing

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RECOMMENDATIONS

- ◆ Accelerate pace of current bilaterals,
AND:
 - Identify topics to be addressed in
other international fora.
- ◆ Intensify discussions of threat posed by
hostile use of and/or hostile actions
against GNSS

RECOMMENDATIONS (continued)

- ◆ Continue efforts toward second GPS civil frequency to achieve eventual separation of civil and military positioning services
- ◆ Seek institutional models for future
 - (a) single GNSS or
 - (b) interoperability of separate systems.